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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,789	04/13/2004	Rabin Bhattacharya	10020/31701	3254
23838	7590	04/19/2005	EXAMINER	
KENYON & KENYON 1500 K STREET, N.W., SUITE 700 WASHINGTON, DC 20005			LEE, CALVIN	
			ART UNIT	PAPER NUMBER
			2818	

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/822,789	Applicant(s) BHATTACHARYA et al.	
	Examiner Lee, Calvin	Art Unit 2818	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2005 (Election).  
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.  
4a) Of the above claim(s) 1-30 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 31-37 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 13 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/13/04</u> | 6) <input type="checkbox"/> Other: _____  |

## OFFICE ACTION

### *Response to Election*

1. The election of claims 31-37, dated March 4, 2005, is acknowledged. Therefore, claims 1-30 are withdrawn for further consideration.

### *Claim Rejections - 35 U.S.C. § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 (e) that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 31-34 and 37 are rejected under 35 U.S.C. 102(e) as anticipated by *Wagner et al*

*Wagner et al* (US 2004/0192082) discloses a method of fabricating a device, comprising:  
-depositing an inorganic conductive or semiconductive layer 14 disposed over a substrate 16 (which has an original configuration) [Fig. 2B and ¶ 0065-0066];  
-depositing an organic layer (i.e., a second overlying substrate 16b) [Fig. 14] on the inorganic conductive or semiconductive layer 14a 14b, such that the organic layer is in direct physical contact with the inorganic conductive or semiconductive layer;  
-deforming the substrate 'layers of substrate 16a-16d can be stretched to a pre-stretched percentage of X%' [¶ 0082]

Since the stretched substrates have been transformed into curly substrates, those substrates must be deformed at an average radial or biaxial strain of at least 0.05% relative to the original flat configuration of the substrates [Fig. 16A and ¶ 0094].

### *Claim Rejections - 35 U.S.C. § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Wagner et al* in view of *Wang et al* (2003 Materials Research Society Symp. Process, Vol. 769) [see IDS].

*Wagner et al* suggests the substrate being a thin elastomer substrate of PDMS, a glass slide or a silicon wafer [¶ 0088], but is silent about the substrate being deformed at a temperature that exceeds its glass transition temperature. *Wang et al*, teaching the same deformation of an elastic substrate, discloses a curved electronic sensor made from a flat wafer of glass plate [page H2.8.1], wherein the wafer/substrate is curved and heated for 1.5 hrs at 130°C. This temperature is 70°C above the glass transition temperature of PMMA” [page H2.8.3 and Fig. 4].

It would have been obvious to one having skills in the art to have modified the method of *Wagner et al* by utilizing a temperature that exceeds the substrate glass transition temperature for the purpose of performing the PMMA substrate to deform freely.

b) In re claim 36, *Wagner et al* does not explicitly suggest the substrate being deformed at a maximum strain rate of 1.5% per 50 minutes. However, it would have been an obvious matter of design choice to have the claimed strain rate, since such a modification would have involved a mere change in the time during the deformation process. A change in size/rate is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

#### ***Contact Information***

6. Any inquiry concerning this communication from the Examiner should be directed to *Calvin Lee* at (571) 272-1896 on Mondays thru Thursdays 6:30-4:30PM. If attempts to reach the examiner by telephone are unsuccessful, Art Unit 2818's Supervisory Patent Examiner *David Nelms* can be reached at (571) 272-1787. The fax phone number for the organization (where this application is assigned to) is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system at <http://pair-direct.uspto.gov>. Should you have questions on access to the PAIR system, contact the Electronic Business Center at (866) 217-9197.



April 8, 2005



David Nelms  
Supervisory Patent Examiner  
Technology Center 2800